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EXAMINER

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/606,987
Filing Date: June 26, 2003
Appellant(s): DAVIS ET AL.

William Monty Simmons
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 10/28/06 appealing from the Office action mailed 7/5/06.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is incorrect in that it states that claims 26-31 are no longer pending. A correct statement of the status of the claims is as follows:

This appeal involves claims 1-8, 10-21, and 23-25.

Claims 26-31 and 34-53 withdrawn from consideration as not directed to the elected bat.

Claims 9, 22, 32, and 33 have been canceled.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows:

Issue 1: Whether claims 1-4, 6, 7, 11, 13-16, 18, 19, 20, and 24 are unpatentable under 35 U.S.C. 103 over Bender in view of Smith.

Issue 2: Whether claims 5 and 17 are unpatentable under 35 U.S.C. 103 over Bender in view of Smith and Cook.

Issue3: Whether claims 8 and 21 are unpatentable under 35 U.S.C. 103 over Bender in view of Smith and Winterowd et al. (Winterowd).

Issue 4: Whether claims 10, 22, and 23 are unpatentable under 35 U.S.C. 103 over Bender in view of Smith and Burns et al. (Burns).

Issue 5: Whether claims 12 and 25 are unpatentable under 35 U.S.C. 103 over Bender in view of Smith and You.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,007,440	Bender	12-1999
1,706,680	Smith	3-1929
4,714,251	Cook	12-1987
4,572,508	You	2/1986
6,506,823	Burns et al.	1-2003
5,944,938	Winterowd et al.	8-1999

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 6, 7, 11, 13-16, 18, 19, 20, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bender in view of Smith. Note Bender at Col. 5, lines 16-19 specifically and the entire disclosure generally. Bender discloses the claimed device with the exception of the use of different first and second materials to obtain the different densities. However, such is a known technique in the art as taught by Smith. It would have been obvious to one of ordinary skill in the art to have used different materials in forming Bender's bat as well if it was desired to obtain particular densities in the different layers offered by different materials. With regard to the "sweet spot zone" or "center of mass" Bender's bat barrel will inherently have such a zone between two predefined points.

Concerning claims 6 and 7, note Col. 4, lines 33-37 which teaches that a greater number of lamina layers of thickness less than .25 inches may be used. Obviously the exact thickness will depend on the number of lamina used to form the laminate. Absent a showing of unexpected results the exact thickness of the lamina would have been up to the ordinarily skilled artisan depending on the number of lamina he or she wished to

use. For purposes of the rejection the lamina described in Col. 4, lines 33-37 may be the first strips of claim 6 or the second strips of claim 7.

Regarding claim 13, which requires different lengths of the first and second portions, note Bender at Col. 3, lines 40-48. The inner lamina core portion extends the length of the bat and forms the handle and medial portion of the barrel while both outer lamina portions only extend the length of the barrel. Thus, the bat comprises a first plurality of relatively denser strips that extend the full length of the bat in the core or medial portion of the barrel, while a second and third plurality of relatively less dense and shorter strips form outer portions of the barrel only.

With regard to claims 19 and 20, Bender does not specify the thickness of the lamina of his outer (second and third) portions. However, he does disclose the inner lamina are of the claimed thickness as explained in the claim 6 and 7 rejection and absent a showing of unexpected results it would have been obvious to one of ordinary skill in the art to have used the same thickness when constructing Bender's alternate embodiment bat depending on the number of lamina used to form the second and third laminates and to simply the step of cutting the lamina by setting a cutting blade for a particular set thickness.

Concerning claims 11 and 24, both references teach the use of ash.

Claims 5 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bender in view of Smith and Cook. Bender in view of Smith obviates the claimed device for the reasons set forth above with the exception of the "apart" limitation. However, as disclosed by Cook it is known in the art to vary the density of the bat along the

longitudinal axis of the bat by creating separate sections apart from one another. It would have been obvious to one of ordinary skill in the art to have done the same with Bender's laminated sections to tailor the bat to a particular batter's needs.

Claims 8 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bender in view of Smith and Winterowd et al. (Winterowd). Bender in view of Smith obviates the claimed device with the exception of the type of bonding agent used. However, as disclosed by Winterowd bonding agents such as that claimed are known in the woodworking art for bonding laminates. It would have been obvious to one of ordinary skill in the art to have used such as Bender's bonding agent to provide a secure bond.

Claims 10, 22, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bender in view of Smith and Burns et al. (Burns). Bender in view of Smith obviates the claimed device with the exception of the sealant/protectant. However, as disclosed by Burns sealant/protectants such as that claimed are known for use on bats. It would have been obvious to one of ordinary skill in the art to have used such on Bender's bat to protect it.

Claims 12, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bender in view of Smith and You. Bender in view of Smith obviates the claimed device with the exception of the use of composites to form laminations. Bender uses wood for his laminations. However, as disclosed by You it is known in the art to use composites for such laminations as well. It would have been obvious to one of ordinary skill in the art to have used the same on Bender's bat to add strength to it.

(10) Response to Argument

Appellant's first argument, (page 11 first paragraph) is that the Bender reference only teaches a bat with an inner layer formed from thin lamina and two outer layers of a single thick lamina. However, as pointed out from the outset of prosecution of this application, Bender clearly teaches at Col. 5, lines 16-19 that the outer layers may also be formed of multiple layers of lamina just as the inner layer is formed. Thus, this argument of appellants is without merit.

The next substantive argument advanced by appellants is that Bender does not disclose the use of different types of material to form the lamina for the inner and outer layers of the bat. In response the examiner simply notes that such is not being asserted by the examiner. Had it been the instant rejections would have been based on anticipation and not the combination of Bender and Smith under 35 U.S.C. 103(a) which teach the obviousness of appellants' claims.

Next, it is argued that the rejections do not teach selecting lamina to form the bat such that a location of a center of mass of the bat is predetermined for a bat having a predetermined exterior outline.

Regarding the "predetermined" argument appearing on pages 12-14, 17, and 18, when one manufactures a bat as disclosed by Bender, one is choosing lamina of particular densities to form the bat and is selecting denser lamina for the medial portion of the bat. Prior to machining the bat one is also deciding, or predetermining, what they desire the outer shape of the bat to look like to satisfy a particular customer. In taking these steps one is inherently manufacturing a bat which has a predetermined "sweet

spot zone” or “center of mass.” This is all that the claims require. Bender’s bat, just as appellants’, necessarily has its “sweet spot zone” or “center of mass” determined by the choices involved in selecting the lamina used in the bat. As with any bat, a skilled user (batter) will prefer a bat of the Bender design to have particularly tailored properties deemed advantageous to that particular user.

As to the use of “different” materials, one could arguably state that Bender does teach different materials just by virtue of their having different densities. However, because the appellant intends “different” to connote materials of different matter the examiner has cited the Smith reference to teach that in the bat art, it is known, when one desires to form a bat with layers of different density, to use “different” materials as appellant intends the term. As pointed out in the rejection, the use of such “different” materials will allow for a wider variety of densities to be obtained and therefore a wider variety of bat characteristics to be obtained. Thus, there is motivation for one of ordinary skill in the art to use “different” materials to obtain the different densities sought by Bender.

Appellant’s next argument is that Bender teaches that the “length of the initial wood laminas” must be selected to be greater than the length of the finished bat and that the lamina must run the full length of the bat. No particular relevance is seen in this argument. As the examiner pointed out above, one still must predetermine what density laminates to use and what shape the bat should be. Moreover, this is exactly the same method by which appellants form their bat. Note page 17, first paragraph of appellants’ specification.

In response to appellants' further comments concerning the combination of Bender and Smith beginning on page 14 of the brief, it is first noted Smith concerns using different lamina in a bat of different density with the denser layer in the medial portion of the bat and the lighter layers in the outer portion of the bat, to help give the bat a desired balance, so Smith is completely applicable to the instant issue. What Smith does not teach about using thin lamina to form the center and outer lamina is irrelevant to the teaching that layers of different density may be obtained by using different materials which is the purpose for which Smith was cited.

Finally, with regard to the Bender/Smith rejections appellant argues that based on the examiner's logic Bender should not have been allowed because it was common knowledge prior to Bender that different woods have different densities. Appellant is apparently ignoring that with regard to the instant application, in addition to this knowledge, there is also a disclosure in the art to form the medial and outer sections of the bat from laminated sections wherein the lamina have different densities, a teaching that the denser lamina portion should be placed in the medial portion of the bat; and that in the art different types of wood may be used to obtain the lamina of different densities. Thus, there is a sufficient prima facie case, not based on hindsight, that appellant's claims are obvious.

The next argument presented by appellant concerns the rejection of claims 5 and 17 based on Bender in view of Smith and Cook.

Appellant's first argument, page 20, third paragraph, again concerns the predetermined center of mass or sweet spot in forming a bat. For the same reasons as

those explained above it is the examiner's position that when one manufactures a bat based on the principles of Bender as modified by Smith and Cook, one is inherently predetermining these facets of the bat.

As to appellant's argument that there is no suggestion to combine the Bender/Smith and Cook references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Cook teaches the advantages of using "apart" sections in a bat to vary the density along the longitudinal axis of the bat. It would have been obvious to one of ordinary skill in the art to have done the same with Bender's laminated sections to tailor the bat to a particular batter's needs.

One of ordinary skill in the art seeking to vary the density of Bender's bat along the longitudinal axis of the bat, as taught by Cook to be advantageous, would obviously have seen the advantages of Cook's solution. Such a motivation is not hindsight but rather is what Cook itself teaches.

Appellant's final argument concerns the rejections of claims 6, 7, 18, and 19 based on the claimed lamina thicknesses being obvious over Bender's teaching. Again it is noted that Bender's lamina are not limited to a thickness of .25 inches. In the very passage cited by appellants on page 23 of the brief it is clearly stated that the lamina

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may be thinner than .25 inches. Appellant's claimed thickness of $1/32^{\text{nd}}$ of an inch to $1/12^{\text{th}}$ of an inch thus amounts to a range within the range disclosed by Bender. "In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257, 191USPQ 90 (CCPA 1976); In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed Cir. 1990). Appellant's can rebut a prima facie case of obviousness based on overlapping ranges by showing the criticality of the claimed range", (MPEP 2144.05) Here, no such criticality has been shown. Therefore, the rejection must stand.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Mark S. Graham



Conferees:

Eugene Kim



Boyer Ashley

